

Waste Disposal 2637
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INTER-COMPANY CORRESPONDENCE
UNION CARBIDE NUCLEAR COMPANY
Division of Union Carbide Corporation

To: R. W. Dehoney
Building 9201-5

Plant: Oak Ridge National Laboratory

Date: May 17, 1961

Copies To: M. E. Ramsey ✓
File

Subject: Wastes in Poplar Creek

X-10 Director's Document Center
1961- Waste Disposal Folder

The following is a summary of the estimated wastes contributed to Poplar Creek by ORNL located in the Y-12 Area:

Building 9204-3

<u>Waste Material</u>	<u>Form</u>	<u>Quantity/Month</u>	<u>Disposal Method</u>
U ²³⁸	< 1 ppm	5 gm/mo.	small batches
Neutralization Tank*	pH7	4000-5000 gal/mo.	300 gal/batches
3% HNO ₃		600 gal/mo.	small batches

*The following solutions are discharged into this tank, neutralized with caustic and discharged to the creek in 300 gallon batches.

<u>Solution</u>	<u>Gallons/Month</u>
10% H ₂ SO ₄	20
3 - 10% HNO ₃	1500
5% HCl	15
3% HN ₄ OH	125
2% Oxalic Acid	60
5% Ammonium Bifluoride	1500
5% Soluable Salts	1000

This document has been approved for release
to the public by:

David R. Hamlin 11/17/95
Technical Information Officer Date
ORNL Site

Building 9731

<u>Waste Material</u>	<u>Form</u>	<u>Quantity/Month</u>	<u>Disposal Method</u>
HNO ₃	2-5%	280 gal.	small batches
Ammonium Biflouride	.5 Ammonium Biflouride	200 gal.	small batches
Oxalic Acid	2% Oxalic Acid	30	small batches
Soluable salts	5% HNO ₃	500 gal.	small batches

Building 9201-2

Cooling water from various machines and a small amount (15 gallons/mo.) of potassium dichromate - H₂SO₄ cleaning solution is discharged.

Toxic chemical wastes from a small analytical laboratory are caught in 55 gallon drums and sent to the burial ground.

Building 9201-3

Cooling water from various operating rigs enter the creek from this building. Waste from a beryllium cleaning process is held-up in a large concrete tank where the beryllium settles out. (This tank has overflowed to the creek once and sampling showed less than 1 ppm Be in the overflow line.)

Building 9204-1

The following amounts of chemicals are consumed each month and are discharged in small batches with copious quantities of water into the building drains and into Poplar Creek.

HNO ₃	30 gallons
HCl	.5 gallons
HF	.5 gallons
H ₂ SO ₄	1 gallon

Toxic wastes from a analytical facility are caught in 55 gallon drums and taken to the burial ground.

Building 9207 and 9210

The following materials are used in the quantities indicated in this area. These materials are washed down the building drains with large amounts of water.

<u>Material</u>	<u>#/Month</u>
Acetic Acid	10
Acetone	45

Building 9207 and 9210 (cont'd)

<u>Material</u>	<u>#/Month</u>
Alcohol	40
Alumia	3
Ammonium Sulphate	35
Butanol	3
Calcium Hypochlorite Solution (700ppm)	1000 gal/day
Chloroform	3
1% Chronic Acid	1
Detergents	50
Ether	25
Hydrochloric Acid	5
Nitric Acid	3
Osmic Acid	1
Perchloric Acid	.5
Potassium Hydroxide	5
Sulphuric Acid	45
Dichromate - H_2SO_4	6
Toluene	5
Xylene	10
Detergents: Heikol	600
Sted	35
Tide	16
Soaps: Creamycin	35
White hand soap	4
Disinfectants:	
O-syl	30
Sodium Hypochlorite	3
Tergisyl	30
Wescodyne	230

The following buildings will be vacated by ORNL in the near future and therefore are not included: Buildings 9766, 9733-1, 9733-2, 9733-3, and 9733-4.

Signed - W. Y. Gissel

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WYG:jl